

JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA
PGDM (MB/C)/PGDM (M)/PGDM(SM)
THIRD TRIMESTER (Batch 21-23)

END-TERM EXAMINATIONS, APRIL 2022
Set-II

Course Name	Business Research Methods	Course Code	OM 301
Max. Time	2 hours	Max. Marks	40 Marks

INSTRUCTIONS:

1. Attempt all questions, marks are indicated after each question
2. Attempt question as per sequence & marks correct question number
3. Permissible Plagiarism Limit is twenty-five percent
4. Overall Permissible Plagiarism is 10%. Marks will be deducted if the Plagiarism is above the permissible limit. The Penalty Clause is: 11-20% - Minus 5 Marks, above 20% - Reappear

1. The Indian Army wants to ascertain why young students do not select the armed forces as a career option in their graduation.
 - a. How would you formulate a research problem to resolve the dilemma? (3)
 - b. What would be the variables under study? (2)
 - c. Frame the hypotheses related to the research objectives? (3)

2. Identify and explain the following sampling techniques:
 - a. Executives were divided into six groups – banking, telecom, insurance, education, consultancy, and entertainment. Random samples were taken from each of these groups according to their representation in the population. (2)
 - b. In which the sampling design, the first element is chosen at random and the remaining elements are picked up by adding the sampling interval to it successively (2)
 - c. A large state was divided into 25 smaller areas. Then five of these were selected at random and the interviews were conducted only in these five areas (2)
 - d. A magazine article suggested that ‘Consumers aged 35 to 44 will soon be the nation’s biggest spenders, so advertisers must learn how to appeal to this over-the-thrill crowd.’ If this suggestion appeals to the tourism industry, what should the sampling technique be to assess the tastes of this group? (2)

3. The training manager of a company that assembles and exports pool pumps wants to know if there is a link between the *number of hours* spent by assembly workers in *training* and their *productivity* on the job. The productivity is measured in terms of *Output, i.e. number of units assembled per day*. A random sample of 30 assembly workers was selected and their performances evaluated. The snapshot of the data is given below. The SPSS data is attached.

	Training hours	Output
1	20.00	44.00
2	28.00	54.00
3	38.00	73.00
4	19.00	46.00
5	33.00	48.00
6	30.00	57.00
7	42.00	66.00
8	20.00	40.00
9	32.00	62.00
10	24.00	38.00

- a. Identify the independent and dependent variable. Express/model the relationship between the two considered variables. Interpret the kind of relation exists between the variables? (4)
 - b. Comment on the strength of the relationship between the two considered variables. Is more research needed to find additional independent variables or the model is adequate? (4)
 - c. *Estimate* the average daily output of an assembly worker who has received only twenty-five hours of training. (2)
4. The best-selling product of a consumer durables manufacturer has reached the saturation stage in its product life-cycle. The company is not willing to withdraw the product from the market and has decided to motivate its sales executives to take the personal selling route. The company organized a three-day workshop to motivate its sales executives. Three months later, the company selected nine sales executives randomly and collected data on the number of average productive sales calls in day before and after the training. The snapshot of the data collected are provided in the following table. The SPSS data is attached. (6)

Sales	Productive Sales Call (before training)	Productive Sales Call (after training)
1	3	6
2	4	7
3	2	5
4	5	7
5	3	2
6	4	6
7	6	5
8	5	8
9	4	6

Use $\alpha = 0.05$ to test whether there is a significant difference in the number of productive sales calls before and after the training programme.

5. What is measurement? Discuss with the help of the examples the four key levels of data measurement. (8)



JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM /PGDM (M)/PGDM(SM)

THIRD TRIMESTER (Batch 21-23)

END-TERM EXAMINATIONS, APRIL 2022

Set-II

Course Name	Business Research Methods	Course Code	OM 301
Max. Time	2 hours	Max. Marks	40 Marks

INSTRUCTIONS:

1. Attempt all questions, marks are indicated after each question
2. Attempt question as per sequence & marks correct question number
3. Overall Permissible Plagiarism is 10%. Marks will be deducted if the Plagiarism is above the permissible limit. The Penalty Clause is: 11-20% - Minus 5 Marks, above 20% - Reappear

1. The Indian Army wants to ascertain why young students do not select the armed forces as a career option in their graduation.

- a. How would you formulate a research problem to resolve the dilemma? (3)
- b. What would be the variables under study? (2)
- c. Frame the hypotheses related to the research objectives? (3)

2. Identify and explain the following sampling techniques:

- a. Executives were divided into six groups – banking, telecom, insurance, education, consultancy, and entertainment. Random samples were taken from each of these groups according to their representation in the population. (2)
- b. In which the sampling design, the first element is chosen at random and the remaining elements are picked up by adding the sampling interval to it successively (2)
- c. A large state was divided into 25 smaller areas. Then five of these were selected at random and the interviews were conducted only in these five areas (2)
- d. A magazine article suggested that ‘Consumers aged 35 to 44 will soon be the nation’s biggest spenders, so advertisers must learn how to appeal to this over-the-thrill crowd.’ If this suggestion appeals to the tourism industry, what should the sampling technique be to assess the tastes of this group? (2)

3. The training manager of a company that assembles and exports pool pumps wants to know if there is a link between the *number of hours* spent by assembly workers in *training* and their *productivity* on the job. The productivity is measured in terms of *Output*, i.e. *number of units assembled per day*. A random sample of 30 assembly workers was selected and their performances evaluated. The snapshot of the data is given below. The SPSS data is attached.

	Training_hou s	Output
1	20.00	44.00
2	28.00	54.00
3	38.00	73.00
4	19.00	46.00
5	33.00	48.00
6	30.00	57.00
7	42.00	66.00
8	20.00	40.00
9	32.00	62.00
10	24.00	38.00

- a. Identify the independent and dependent variable. Express/model the relationship between the two considered variables. Interpret the kind of relation exists between the variables? (4)
 - b. Comment on the strength of the relationship between the two considered variables. Is more research needed to find additional independent variables or the model is adequate? (4)
 - c. *Estimate* the average daily output of an assembly worker who has received only twenty-five hours of training. (2)
4. The best-selling product of a consumer durables manufacturer has reached the saturation stage in its product life-cycle. The company is not willing to withdraw the product from the market and has decided to motivate its sales executives to take the personal selling route. The company organized a three-day workshop to motivate its sales executives. Three months later, the company selected nine sales executives randomly and collected data on the number of average productive sales calls in day before and after the training. The snapshot of the data collected are provided in the following table. The SPSS data is attached. (6)

Sales	Productive Sales Call (before training)	Productive Sales Call (after training)
1	3	6
2	4	7
3	2	5
4	5	7
5	3	2
6	4	6
7	6	5
8	5	8
9	4	6

Use $\alpha = 0.05$ to test whether there is a significant difference in the number of productive sales calls before and after the training programme.

5. What is measurement? Discuss with the help of the examples the four key levels of data measurement. (8)